

CLAIMS

1 1. Chemiluminescent lighting element, comprising at least
2 two chambers filled respectively with an oxalate solution and
3 an activator solution, characterized in that the oxalate
4 solution takes place in a tight-closed pouch, made of thin
5 aluminium foil, lined on its interior side by a polymer, said
6 pouch being a first chamber, being itself enclosed in a tight-
7 closed pouch, bigger, made of translucent polymeric film,
8 being a second chamber, containing also the liquid activator
9 solution.

1 2. Element according to claim 1 in which the polymer
2 lining the aluminium foil is a polyolefin.

1 3. Element according to claim 1 or 2 in which the outer
2 pouch consists of two polymeric films sealed together along
3 their periphery.

1 4. Element according to claim 3 in which one of the two
2 polymeric films is lined, on its internal side, by a felt or
3 fabric made of absorbing material and compatible with the
4 oxalate and activator solutions.

2943

12

1 5. Element according to claim 3 in which the films are
2 under elastic tension.

1 6. Element according to claim 1, 2 or 3 in which the
2 outer pouch contains also one or several particles of hard
3 material.

1 7. Element according to claim 4 in which the particle of
2 hard material is a steel ball.

1 8. Element according to claim 4 in which the particle or
2 particles of hard material are polyolefin granulates.

1 9. Element according to anyone of the above claims in
2 which the inner pouch consists of aluminium foils lined of
3 polymer, and in which the sealing has areas of lesser
4 resistance to bursting.

1 10. Manufacturing process of a chemiluminescent lighting
2 element, according to anyone of claims 1 to 9, in which -
3 pouches made of thin aluminum foil lined with polymer are
4 formed in a continuous and sequential way, by the unrolling of
5 two rolls of aluminium tape brought against each other,
6 polymer face in contact, and sealed at least along a

7 periphery, with injection of oxalate solution inside the
8 periphery delimited by the sealing,

9 -said pouches sealed and filled in that manner, are
10 separated by an automated knife and sent one by one, in a
11 sequential and temporized way, to a second machine which
12 incorporates them in a pouch of translucent plastic,

13 -said second machine doing the face-to-face positioning
14 of two tapes of flexible translucent polymer film, unrolled
15 from storage rolls, and sealed along periphery with insertion
16 of the aluminium pouch and of the activator solution inside
17 said periphery, the whole of which being done in a continuous
18 and temporized way,

19 -the final completed pouches being then either separated
20 from each other by means of an automated knife into series of
21 individual pouches, or supplied to end-user as a chain as gone
22 off from the machine.

1 11. Manufacturing process according to claim 10, in which
2 one of the two tapes of flexible translucent polymer film is
3 lined, on the face aimed towards the other polymer tape, by a
4 tape made of absorbing fiber felt, and is continuously sealed
5 to the nonlined flexible polymer film tape which faces it.

1 12. Manufacturing process according one of the claim 11

2 is characterized in that, at that moment of inserting the
3 aluminium pouch and the activator solution, one or several
4 hard particles are also inserted between the two pouches.

5 The invention relates to a chemiluminescent light element
6 comprising two chambers, filled respectively with an oxalate
7 solution (5) and an activator solution. The oxalate solution
8 is a tight-sealed pouch (1) made of thin aluminum foil (2,3)
9 lined on its interior side by a polymer, for instance a
10 polyolefin, and so forms the first chamber. This latter is
11 enclosed in a bigger tight-sealed pouch (6) made of
12 translucent polymer film (7,8) forming the second chamber,
13 which also contains the liquid activator (10). The outer
14 pouch consists of two polymer films (7,8) sealed together
15 along their periphery and contain a ball (11) able to pierce
16 the inner pouch (1) by manual action from the user.